

PCT JOINT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

To:

BECKER, Konrad
Novartis AG
Corporate Intellectual Property
Patent & Trademark Department
CH-4002 Basel
SUISSE

Date of mailing (day/month/year) 04 December 2001 (04.12.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 4 -30970A/HO 17	
International application No. PCT/EP00/05058	International filing date (day/month/year) 02 June 2000 (02.06.00)

1. The following indications appeared on record concerning:

☒ the applicant ☒ the inventor ☐ the agent ☐ the common representative

Name and Address

BEATTIE, David
13 Thelton Avenue
Broadbridge Heath
Horsham
West Sussex RH12 3LS
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☒ the address ☐ the nationality ☐ the residence

Name and Address

BEATTIE, David
Novartis Horsham Research Centre
Wimblehurst Road
Horsham, West Sussex RH12 5AB
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office ☐ the designated Offices concerned
☐ the International Searching Authority ☒ the elected Offices concerned
☐ the International Preliminary Examining Authority ☐ other:
The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Anman QIU

Telephone No.: (41-22) 338.83.38

PA JT COOPERATION TREAT

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

BECKER, Konrad
Novartis AG
Corporate Intellectual Property
Patent & Trademark Department
CH-4002 Basel
SUISSE

Date of mailing (day/month/year) 03 December 2001 (03.12.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 4 -30970A/HO 17	
International application No. PCT/EP00/05058	International filing date (day/month/year) 02 June 2000 (02.06.00)

1. The following indications appeared on record concerning:

☒ the applicant ☒ the inventor ☐ the agent ☐ the common representative

Name and Address

FAIRHURST, Robin, Alec
5 Greenacres
Ashington
West Sussex RH20 3LR
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☒ the address ☐ the nationality ☐ the residence

Name and Address

FAIRHURST, Robin, Alec
Novartis Horsham Research Centre
Wimblehurst Road
Horsham, West Sussex EH12 5AB
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office ☐ the designated Offices concerned
☐ the International Searching Authority ☒ the elected Offices concerned
☐ the International Preliminary Examining Authority ☐ other:
The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Anman QIU

Telephone No.: (41-22) 338.83.38

P A T E N T COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

BECKER, Konrad
Novartis AG
Corporate Intellectual Property
Patent & Trademark Department
CH-4002 Basel
SUISSE

Date of mailing (day/month/year) 05 December 2001 (05.12.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 4 -30970A/HO 17	
International application No. PCT/EP00/05058	International filing date (day/month/year) 02 June 2000 (02.06.00)

1. The following indications appeared on record concerning:

☒ the applicant ☒ the inventor ☐ the agent ☐ the common representative

Name and Address

BRUCE, Ian
9 Bourns Court
Ayshe Court Drive
Horsham
West Sussex RH13 5RL
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☒ the address ☐ the nationality ☐ the residence

Name and Address

BRUCE, Ian
Novartis Horsham Research Centre
Wimblehurst Road
Horsham, West Sussex RH12 5AB
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office ☐ the designated Offices concerned
☐ the International Searching Authority ☒ the elected Offices concerned
☐ the International Preliminary Examining Authority ☐ other:
The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Anman QIU

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

To:

BECKER, Konrad
Novartis AG
Corporate Intellectual Property
Patent & Trademark Department
CH-4002 Basel
SUISSE

Date of mailing (day/month/year) 21 September 2001 (21.09.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 4 -30970A/HO 17	
International application No. PCT/EP00/05058	International filing date (day/month/year) 02 June 2000 (02.06.00)

1. The following indications appeared on record concerning:

☒ the applicant
 ☐ the inventor
 ☐ the agent
 ☐ the common representative

Name and Address

NOVARTIS AG
Schwarzwaldallee 215
CH-4058 Basel
Switzerland

State of Nationality

CH

State of Residence

CH

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person
 ☐ the name
 ☒ the address
 ☐ the nationality
 ☐ the residence

Name and Address

NOVARTIS AG
Lichtstrasse 35
CH-4056 Basel
Switzerland

State of Nationality

CH

State of Residence

CH

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office
 ☐ the International Searching Authority
 ☐ the International Preliminary Examining Authority
 ☐ the designated Offices concerned
 ☒ the elected Offices concerned
 ☐ other:
The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Dominique DELMAS

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 11 January 2001 (11.01.01)	
International application No. PCT/EP00/05058	Applicant's or agent's file reference 4 -30970A/HO 17
International filing date (day/month/year) 02 June 2000 (02.06.00)	Priority date (day/month/year) 04 June 1999 (04.06.99)
Applicant CUENOUD, Bernard et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
 04 December 2000 (04.12.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Pascal Piriou Telephone No.: (41-22) 338.83.38
---	---

PCT

REC'D 29 MAY 2001

WIPO

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 4-30970A/HO 17		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/05058	International filing date (day/month/year) 02/06/2000	Priority date (day/month/year) 04/06/1999	
International Patent Classification (IPC) or national classification and IPC C07D215/26			
Applicant NOVARTIS AG et al.			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
 - ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 04/12/2000	Date of completion of this report 25.05.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Timmermans, M Telephone No. +49 89 2399 8940 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/05058

I. Basis for report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-48 as originally filed

Claims, No.:

1-16 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/05058

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-16
	No:	Claims	
Inventive step (IS)	Yes:	Claims	4, 5,7,8,12
	No:	Claims	1-3,6,9-11,13-16
Industrial applicability (IA)	Yes:	Claims	1-16
	No:	Claims	

2. Citations and explanations
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP00/05058

R l t m V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The following documents are relevant :

D1: EP-A-0 882 704

D2: WO 99 09001

D3: WO 93 18007

D4: EP-A-0 894 787

D5: WO 93 15041

D6: WO 92 18461

2. The novelty of the subject-matter of the present application is acknowledged.
(Art. 33(2) PCT).

The compounds which are the object of the present application differ from the products disclosed in D1-D4 and D6 by having a benzocyclopentanyl (indane) or benzocycloheptanyl backbone instead of a tetrahydronaphthalenyl one. There is a overlap between the compounds of the present application and those disclosed in D5 (see D5, claim 1) but D5 discloses only 7-benzylaminobenzocycloheptene derivatives (such as D5, preparation 33, page 62) and none N-arylethyl-substituted 2-aminoindane or 7-aminobenzocycloheptanyl compounds. Moreover D5 does not disclose the β 2-agonist activity of the compounds of the present application.

3. Claims 1-3, 6, 9-11 and 13-16 of the present application are considered as lacking an inventive step (Art. 33(3) PCT).

- 3.1 Document D1, which is considered to represent the most relevant state of the art, discloses 3,4-disubstituted phenylethanolaminotetralincarboxamide derivatives such as 2-[[2S-2-[[2RS-2-hydroxy-2-(4-hydroxy-3-hydroxymethylphenyl)ethyl]-amino]-1,2,3,4-tetrahydronaphthalen-7-yloxy]-N,N-dimethylacetamide (see D1, example 1, page 22) having β 2-agonist activity from which the compounds of the present application differs at least in that they possess an indane or

benzocycloheptanyl backbone.

The technical problem underlying the application can thus be seen as the provision of alternative β 2-agonist derivatives.

Considering the structural differences existing between the compounds object of the present invention and those disclosed in the available prior art, it was not obvious that the claimed products would have the desired β 2-agonist properties. An inventive step can thus be acknowledged for the compounds which were shown to possess the desired activity (as exemplified on bridging § pages 14-15).

Claims 4, 5, 7, 8 and 12 are thus considered as involving an inventive step.

- 3.2 However, it must be reminded that the breadth of the claims should be such that it represents a reasonable generalisation over the examples provided, and such that every compound falling within its scope actually provides a solution to the problem underlying the invention.

The expressions in the claims "alkyl", "alkyl interrupted..hetero atoms", "alkenyl", "aryl", "carbocyclic or heterocyclic ring" are non-limitative and are therefore not regarded as obvious modifications or equivalents of the examples which have been given in the description. Accordingly the said expressions should be restricted in this respect to the particular meanings specified in the description pages 2-3.

It is also clear from the examples that the Ar group is always a quinolin-2-one or a substituted phenyl group. The Applicant has not indicated why it is believed that the claimed non-exemplified compounds which cannot be considered as obvious equivalents of the exemplified ones (i.e. Ar being benzoimidazolidinone, benzomorpholinone..) should possess the desired β 2-agonist properties.

Claims 1-3, 6, 9-11 and 13-16 are thus considered as lacking an inventive step.

4. The industrial applicability of the present application is acknowledged (Art. 33(4) PCT).

Rule VIII

Certain observations on the international application

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1-D6 is not mentioned in the description, nor are these documents identified therein.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/EP 00/05058

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07D215/26 A61K31/395 A61P43/00 C07D405/12 C07C233/43
 C07D215/22 C07C215/80 C07C311/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K A61P C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 882 704 A (KISSEI PHARMACEUTICAL CO., LTD) 9 December 1998 (1998-12-09) page 2, line 5 - line 24 page 3, line 25 - line 31; claim 1	1,13-15
Y	WO 99 09001 A (KISSEI PHARMACEUTICAL CO., LTD) 25 February 1999 (1999-02-25) * abstract *	1,13-15
Y	WO 93 18007 A (TOKYO TANABE COMPANY LTD.) 16 September 1993 (1993-09-16) * abstract *	1,13-15
A	EP 0 894 787 A (KISSEI PHARMACEUTICAL CO., LTD) 3 February 1999 (1999-02-03) page 4 -/-	1,13-15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

A document member of the same patent family

Date of the actual completion of the international search

28 September 2000

Date of mailing of the international search report

18/10/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
 Fax: (+31-70) 340-3016

Authorized officer

Van Bijlen, H

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/05058

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 93 15041 A (FUJISAWA PHARMACEUTICAL CO.,LTD.) 5 August 1993 (1993-08-05) page 35, line 30 -page 36, line 12; claim 1	1,13
A	WO 92 18461 A (FUJISAWA PHARMACEUTICAL CO.,LTD.) 29 October 1992 (1992-10-29) page 1 -page 2; claim 1	1,13

INTERNATION SEARCH REPORT

Information on patent family members

Int. Jona! Application No

PCT/EP 00/05058

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 882704 A	09-12-1998	AU 2001497 A	02-09-1997
		BR 9707566 A	27-07-1999
		NO 983777 A	19-10-1998
		CA 2245490 A	21-08-1997
		CN 1216526 A	12-05-1999
		CZ 9802523 A	16-12-1998
		HU 9900621 A	30-08-1999
		WO 9730023 A	21-08-1997
		PL 328530 A	01-02-1999
WO 9909001 A	25-02-1999	AU 8562098 A	08-03-1999
		ZA 9807425 A	22-02-1999
WO 9318007 A	16-09-1993	AU 3648793 A	05-10-1993
EP 894787 A	03-02-1999	JP 9255637 A	30-09-1997
		AU 2176197 A	17-10-1997
		WO 9735835 A	02-10-1997
WO 9315041 A	05-08-1993	AT 156804 T	15-08-1997
		AU 3367993 A	01-09-1993
		CA 2107566 A	04-08-1993
		CN 1084846 A	06-04-1994
		DE 69313051 D	18-09-1997
		DE 69313051 T	08-01-1998
		DK 583485 T	06-10-1997
		EP 0583485 A	23-02-1994
		ES 2105286 T	16-10-1997
		GR 3025106 T	30-01-1998
		HK 1000768 A	24-04-1998
		HU 65351 A	02-05-1994
		IL 104567 A	18-03-1997
		JP 11092432 A	06-04-1999
		JP 2819435 B	30-10-1998
		JP 6506955 T	04-08-1994
		MX 9300552 A	01-09-1993
		RU 2125983 C	10-02-1999
		US 5387710 A	07-02-1995
		ZA 9300591 A	18-10-1993
WO 9218461 A	29-10-1992	AT 157080 T	15-09-1997
		DE 69221721 D	25-09-1997
		DK 579833 T	15-09-1997
		EP 0579833 A	26-01-1994
		JP 6506676 T	28-07-1994

2 L

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 4 -30970A/HO 17	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 00/ 05058	International filing date (day/month/year) 02/06/2000	(Earliest) Priority Date (day/month/year) 04/06/1999
Applicant NOVARTIS AG et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

BETA2-ADRENOCEPTOR AGONISTS

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

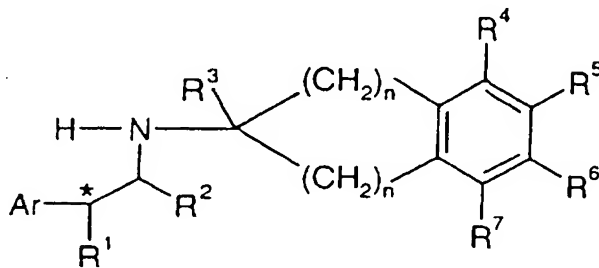
☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

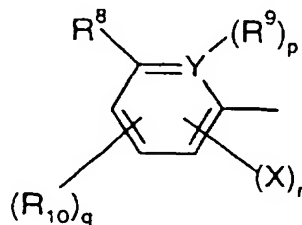
Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

Compounds of formula



in free or salt or solvate form, where

Ar is a group of formula



Y is carbon or nitrogen and R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , X, n, p, q and r are as defined in the specification, their preparation and their use as pharmaceuticals, particularly for the treatment of obstructive or inflammatory airways diseases.

The compounds of formula I in free, salt or solvate form, have β_2 -adrenoreceptor agonist activity.

INTERNATIONAL SEARCH REPORT

International Application No

PC 00/05058

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D215/26 A61K31/395 A61P43/00 C07D405/12 C07C233/43
 C07D215/22 C07C215/80 C07C311/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K A61P C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 882 704 A (KISSEI PHARMACEUTICAL CO., LTD) 9 December 1998 (1998-12-09) page 2, line 5 - line 24 page 3, line 25 - line 31; claim 1 ---	1,13-15
Y	WO 99 09001 A (KISSEI PHARMACEUTICAL CO., LTD) 25 February 1999 (1999-02-25) * abstract * ---	1,13-15
Y	WO 93 18007 A (TOKYO TANABE COMPANY LTD.) 16 September 1993 (1993-09-16) * abstract * ---	1,13-15
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

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